by large numbers of other terns roosting on the island at night). I also found three broken eggs, the deep orange yolk smeared on the coral pieces. There also were some empty nest scrapes, presumably in preparation of laying. The five intact eggs, one in each nest, were of the usual kind, heavily blotched and streaked, and of the following dimensions: 41x28 mm (two eggs), 43x29 mm, 40x28 mm, 41x29 mm.

The rather unrepresentative number of eggs gives an average of 41.2 x 28.4 mm, similar to the 1980 average (41.2x28.5 mm) and again smaller in width than the averages given in the literature (31.5 mm).

There were no nests or eggs of large crested or other terns. When I moved away from the nests and crouched at the edge of the island, the common terns immediately settled in the nesting area, and five birds sat on the five nests with one egg each. The others perched nearby on coral debris. In the evenings large numbers of terns use the island for roosting, as observed through the telescope from the shore.

It was my intention to visit the island again in mid-June, when I expected to find up to a 100 nests of common terns. Unfortunately the ethnic conflict broke out once again, involving the area directly in warlike operations, and I was prevented from carrying out my plan. Nevertheless, I am now satisfied that the common tern is a resident breeding bird in Sri Lanka.

The time of the year, size of eggs, type of nest scrapes, and identity of the breeding birds are the same as in 1980, and there is no doubt in my mind that the common tern would have bred on this island in the interim and will continue to do so every year if not disturbed. There is more than ample evidence of the all-year round presence on the east coast of Sri Lanka of common terns, including many adults in breeding plumage.

Two questions remain: First, are there other breeding colonies of the common tern in Sri Lanka? Although I was sure that this would be the case, a preliminary recce along the eastern coast from Valaichchenai to Foul Point did not reveal any other breeding colonies at the end of May 1990. Several rocky islands (some with vegetation, sand and coral debris) were visited, but no evidence of the breeding of terns could be found.

Obviously these potential breeding places should have been inspected again by the end of June/beginning of July, but events prevented this. Irrachchal is the only island of its kind known to me along the coasts of Sri Lanka, and until there is evidence to the contrary, I must now assume that it is the only place on which common terns regularly breed in Sri Lanka.

It is thus a unique location, with a unique tern population, and should be given fullest protection under the law as a conservation area to which access by humans would be prohibited at least during the egg-laying period, say from beginning of May to the end of August each year.

The second question revolves around the subspecies of the breeding common terns. I continue to think that it is more likely to be *S.h. hirundo* rather than *S.h. tibetana*. There is some visual support for this assumption, because all the birds seen have a pale silvery-grey mantle. In HANDBOOK OF THE BIRDS OF INDIA AND PAKISTAN (Ali, S. and Ripley, S.D. 1969), *S.h. tibetana* in breeding plumage is said to be "darker and slightly browner above, darker below" than *S.h. hirundo*. Obviously a specimen will have to be collected, but I could not bring myself to shooting one of these birds over the nest.

July 6, 1990 THILO HOFFMANN

14. INDIAN SKIMMER *RYNCHOPS ALBICOLLIS* SWAINSON AND BLACK STORK *CICONIA NIGRA* (LINN.) – NEW ADDITIONS TO THE AVIFAUNA OF KEOLADEO NATIONAL PARK, BHARATPUR

Altogether 317 species of birds were recorded from Keoladeo National Park, Bharatpur, from 1980 to 1986 (Vijayan 1987). Subsequently in 1988 two more species – the Indian skimmer *Rynchops albicollis* and black stork *Ciconia nigra* were added to the list.

On 4 February 1988 a small flock of six Indian skimmers was seen feeding in one of the aquatic blocks of Keoladeo National Park. The birds were seen only for two days. The Indian skimmer has been recorded as a rare vagrant in inland tanks (Ali and Ripley 1983). The black stork was sighted on 3 April 1988 in the Park and could be seen only for four days. This stork is a winter visitor

to Pakistan and sporadically all over north India (Ali and Ripley 1983).

Even though the black stork and Indian skimmer were recorded in Delhi area by Abdulali and Panday (1978), they have never been recorded in Keoladeo National Park.

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July 24, 1990 C. SIVASUBRAMANIAN

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15. UNUSUAL NESTING BEHAVIOUR IN THE DOMESTIC PIGEON *COLUMBA LIVIA* GMELIN

The domestic pigeon *Columba livia* is a monogamous species normally laying two eggs per cluth (Ali and Ripley 1987). Both parents share the duties of incubation and rearing the young. The incubation period varies from 16-18 days and chicks are fledged 21-25 days after hatching. Usually one and occasionally both the chicks from a clutch are fledged. Here we report unusual nesting behaviour of this species involving two females (A and B) which laid in the same nest and shared incubation duties.

Female A laid two eggs in its nest and started incubating them, sharing the duties with its mate. After three days of incubation, male A disappeared. Female B along with its mate built a nest near A's nest and was in the pre-laying stage when male B died. Female A continued incubation alone while female B repeatedly tried to enter A's nest, only to be repelled each time by female A. After two days, female B was able to enter A's nest and lay an egg. One day later B laid another egg, which was about the size of a marble. We removed the abnormal egg, leaving three eggs in A's nest. Subsequently both females shared incubation duties for the next 11 days. On the twelfth day, male A returned and expelled female B from the nest. Afterwards both male and female A incubated and hatched the three eggs and successfully reared all the chicks.

Among Columbidae, clutches of more than two eggs due to laying by more than two females in a common nest has been reported in the rock pigeon *Columba guinea* (Skead 1971), eared dove *Zenaida auriculata* (Murton *et al.* 1974), mourning dove *Zenaida macroura* (Weeks 1980) and ring dove *Streptopelia decaocto* (Cramp 1985). In Columbidae, laying by two females in a common nest may be induced by nest destruction or presence of a predator near the nest during the laying period (Goodwin 1967). Blockstein (1986) observed three cases in which a female and two male mourning doves attended a nest.

However, this is probably the first report of sharing of incubation duties by female columbids. Skadsen (1987) reported sharing of incubation duties by female tree swallows *Iridoprocne bicolor*.

RAJIV SINGH KALSI

May 2, 1990 RAJDEEP KALSI

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